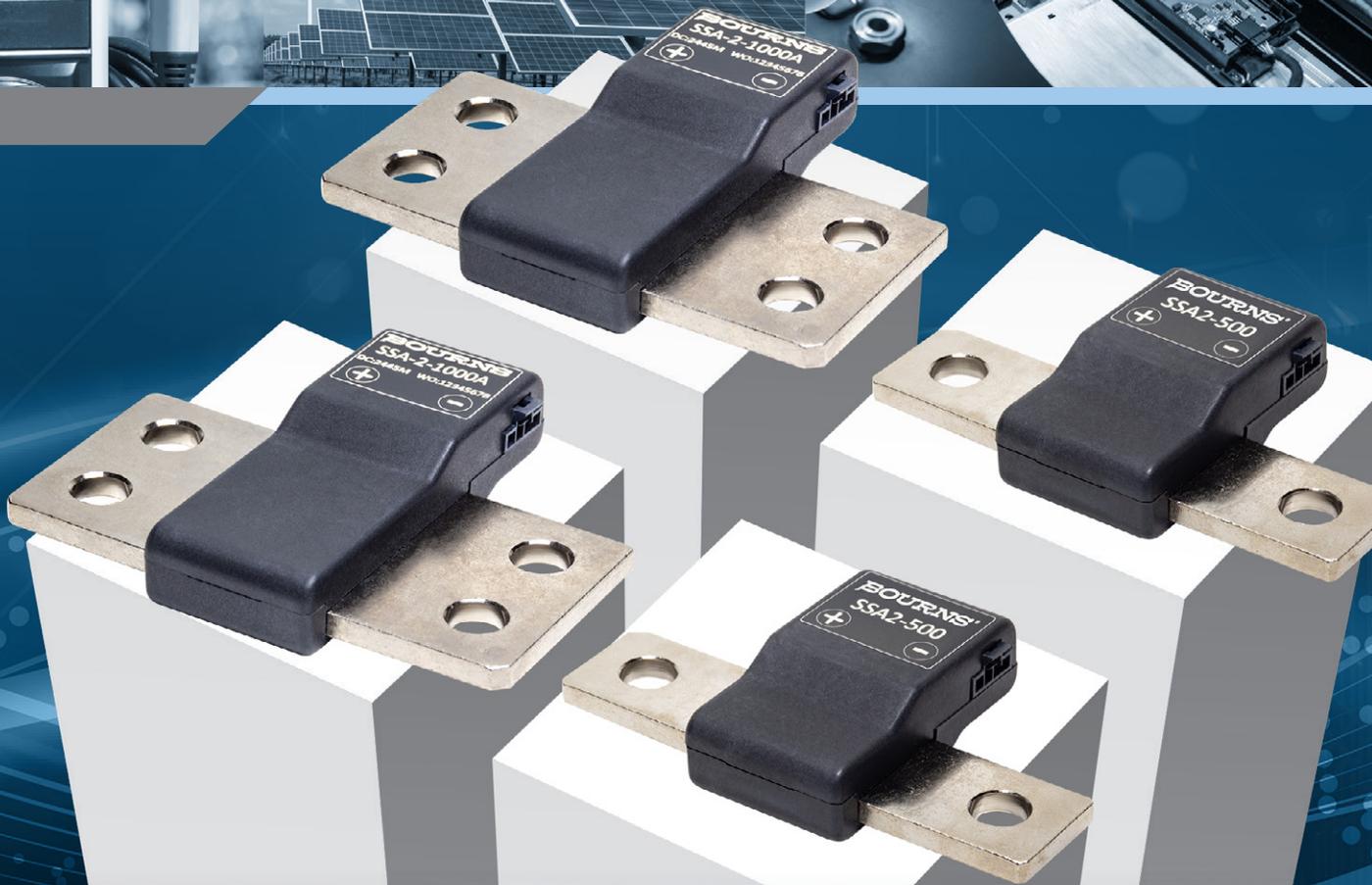


Bourns® SSA-2 Series Analog Current Sensors



BOURNS®

Introduction

BOURNS® SSA-2 SERIES ANALOG CURRENT SENSORS

The Bourns® SSA-2 Series Analog Current Sensor is a small, light model with a resilient connector for enhanced performance. This connector enables higher operating temperatures of up to +115 °C, making it ideal for certain environments that demand reliability and stability. Additionally, the SSA-2 Series offers a user-friendly connector location for easy installation. This design includes high vibration resistance, making it an excellent choice for a highly stressed environment.

The robustness of SSA-2 Series smart current modules makes them suitable for use in high-power (100 A to 1000 A) implementations. Key examples include AC/DC converters, uninterruptible power supplies, renewable energy generation sites, and smart grid infrastructure.

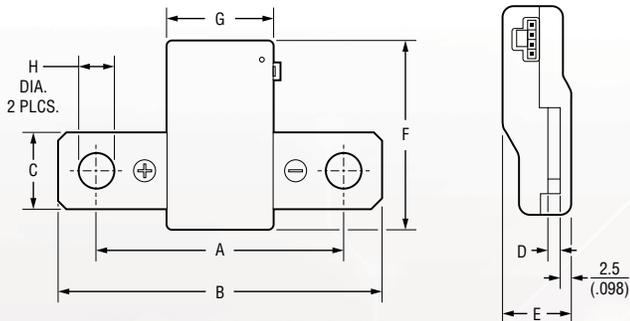
The -40 °C to +115 °C (ambient) operating temperature range allows these devices to be used in harsher environments than other current sensing products.

The SSA-2 Series is RoHS compliant in accordance with Electrical and Electronic Equipment Directive, 2011/65/EU (commonly called "RoHS2") and amendment of Annex II on March 31, 2015, 2015/863.

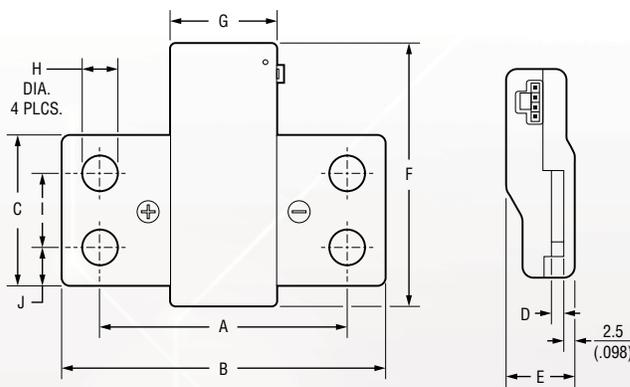
This model is produced and assembled utilizing state-of-the-art production equipment along with lean manufacturing principles to provide our customers with a high-performance product at a competitive price.

PRODUCT DIMENSIONS

SSA-2-100A to SSA-2-500A



SSA-2-1000A



Product Dimensions

Model	SSA-2-100A	SSA-2-250A	SSA-2-500A	SSA-2-1000A
A	63.5 ± 0.5 ($2.50 \pm .020$)			
B	84 ± 0.5 ($3.307 \pm .020$)			
C	20 ± 0.5 ($.787 \pm .020$)			40 ± 0.5 ($1.575 \pm .020$)
D	3 ± 0.5 ($.118 \pm .020$)		4 ± 0.5 ($.157 \pm .020$)	
E	16.4 ± 0.5 ($.646 \pm .020$)		17.4 ± 0.5 ($.685 \pm .020$)	
F	48.7 ± 0.5 ($1.917 \pm .020$)			68.7 ± 0.5 ($2.705 \pm .020$)

Model	SSA-2-100A	SSA-2-250A	SSA-2-500A	SSA-2-1000A
G	28 ± 0.5 ($1.102 \pm .020$)			
H	8.7 ± 0.5 ($.343 \pm .020$)			
I	—	—	—	19 ± 0.5 ($.748 \pm .020$)
J	—	—	—	10.5 ± 0.5 ($.413 \pm .020$)
Mass (g)	67	69	84	145

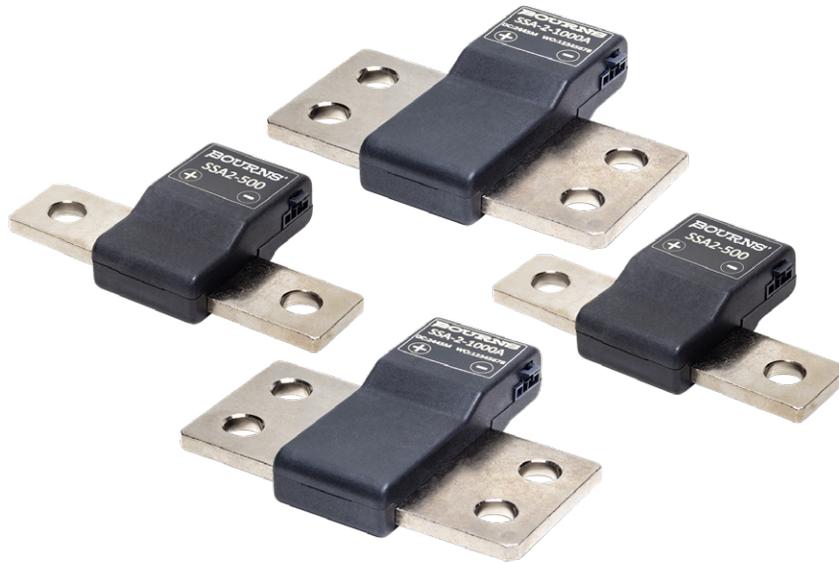
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Product Portfolio

WHAT IS AN ANALOG CURRENT SENSOR?

The New Bourns® SSA-2 Series Analog Current Sensor consists of a high-quality device with immunity to stray magnetic fields with a unipolar power supply requirement that can be used in a wide variety of battery related current sensing applications.

The SSA-2 Series is a current sensing solution with both considerably lower insertion resistance than passive shunt sensors and greater accuracy and operational stability than Hall Effect sensors.



SSA-2 SERIES FEATURES AND BENEFITS

- 100 A to 1000 A nominal current
- AC or DC circuits
- 1500 VDC reinforced isolation
- Amplified differential output, ± 2.5 V peak
- ± 0.2 % Tolerance
- Immunity to stray magnetic fields
- RoHS compliant**

APPLICATIONS

- Energy storage
- Precision energy metering
- Battery systems
- Renewable energy
- Motor drives
- EV charging stations
- Assembled using AEC-Q compliant components (optional)

PRODUCT CHARACTERISTICS

Series	Photo	Package Size	Response Time	Normal Current (A)	Linearity	Initial Accuracy	Bandwidth	Output	Operating Temperature	Storage Temperature	Polarization	Supply Voltage	RoHS Compliant
SSA-2-100A-(AE*)		110 mm	1.6 μ s	± 100	± 0.1 %	± 0.2 %	300 kHz	Analog	-40 °C to +115 °C	-55 °C to +125 °C	Bidirectional	3 V	Yes
SSA-2-250A-(AE*)		110 mm	1.6 μ s	± 250	± 0.1 %	± 0.2 %	300 kHz	Analog	-40 °C to +115 °C	-55 °C to +125 °C	Bidirectional	3 V	Yes
SSA-2-500A-(AE*)		110 mm	1.6 μ s	± 500	± 0.1 %	± 0.2 %	300 kHz	Analog	-40 °C to +115 °C	-55 °C to +125 °C	Bidirectional	5.5 V	Yes
SSA-2-1000A-(AE*)		110 mm	1.6 μ s	± 1000	± 0.1 %	± 0.2 %	300 kHz	Analog	-40 °C to +115 °C	-55 °C to +125 °C	Bidirectional	5.5 V	Yes

*AE = Assembled using AEC-Q compliant components (optional)

**RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.

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